What is claimed is:

1. A method for adjusting a damping coefficient of a spring strut of a vehicle, the method comprising the steps of:

damping said spring strut with a first damping coefficient for a first wheel load;

detecting a change of said first wheel load;

determining a second damping coefficient based on said change of said first wheel load so that the damping after said change remains essentially constant.

2. The method of claim 1, comprising the further steps of:

measuring an acceleration of said vehicle; and,

determining said change of said wheel load from said acceleration.

3. The method of claim 2, wherein the acceleration measured includes at least one of a longitudinal acceleration and a transverse acceleration.

4. The method of claim 1, wherein said change of said wheel load is detected by also considering an added load.

5. The method of claim 1, wherein a slope inclination angle is considered in the detection of said change of said wheel load.

6. The method of claim 1, wherein the detection of said change of said wheel load takes place by measuring a wheel contact force.

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7. The method of claim 6, wherein the measurement of the wheel contact force takes place by measuring an air spring pressure of a damper and an elevation distance between a vehicle axle and the bodywork.

8. The method of claim 1, wherein quantities, which are required for the detection of a change of said wheel load, are made available via a bus system.

9. The method of claim 1, wherein said second damping coefficient is increased relative to said first damping coefficient during an increase of said wheel load essentially proportionally to the root from the increase of said wheel load.

10. The method of claim 1, wherein said second damping coefficient is increased relative to said first damping coefficient during an increase of said wheel load essentially proportionally to said increase of said wheel load.

11. The method of claim 1, wherein said second damping coefficient (Kd2) is computed as follows:

$$Kd2 = \xi_1 * 2\sqrt{Ks * (M1 + \Delta M)}$$

wherein:

ξ_1 = damping of the spring strut;

Ks = spring stiffness of the spring strut;

M1 = first wheel load; and,

ΔM = change of the wheel load.

12. The method of claim 1, wherein the control of the damping is carried out separately for each damper of the vehicle.

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13. The method of claim 1, comprising the further steps of:

comparing the change of said wheel load to a threshold value; and,

changing the damping to improve the roadway-tire contact when said change exceeds said threshold value.

14. The method of claim 13, comprising the further step of switching over said method to a ground-hook method when said threshold value is exceeded.

15. The method of claim 1, comprising the further step of limiting a change of said second damping coefficient relative to said first damping coefficient by a maximum value with said maximum value being dependent upon a speed of said vehicle.

16. The method of claim 15, comprising the further step of increasing said maximum value with increasing speed of said vehicle.

17. A digital storage medium comprising program means for controlling a damping for a bodywork of a vehicle wherein said program means is configured to compute a change of a damping coefficient from a change of wheel load so that the damping remains essentially constant after a change of said wheel load.

18. A control system for controlling a damping for a spring strut of a vehicle, the control system comprising:

means for computing a damping coefficient (Kd2) based on a change of a wheel load so that the damping remains essentially

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5   unchanged after the change of said wheel load; and,

means for outputting an actuating quantity for a damper to
adjust said damping coefficient.

19.   The control system of claim 18, wherein said means for
computing the damping coefficient is configured for access to a
data bus in order to access data for the computation of the
damping coefficient.

20.   The control system of claim 18, further comprising means for
measuring an acceleration of said vehicle; and, said means for
computing said damping coefficient being so configured that a
change of said wheel load is determined from the acceleration
5   data.

21.   The control system of claim 18, further comprising a
ground-hook control module and a comparator for comparing the
change of the wheel load to a threshold value; and, means for
switching over to said ground-hook control module when said
5   threshold value is exceeded.

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